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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,171	10/01/2002	Stefan Ruetz	ZIP 2382	1344
7812	7590	01/12/2005	EXAMINER	
SMITH-HILL AND BEDELL 12670 N W BARNES ROAD SUITE 104 PORTLAND, OR 97229			SMITH, ARTHUR A	
			ART UNIT	PAPER NUMBER
			2851	

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/019,171	<b>Applicant(s)</b> RUETZ ET AL.	
	<b>Examiner</b> Arthur A Smith	<b>Art Unit</b> 2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2004.  
 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 36-68 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1,2 and 36-68 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☒ The drawing(s) filed on 20 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☒ All    b) ☐ Some \*    c) ☐ None of:  
 1. ☒ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Objections***

Claim 2 is objected to because of the following informalities: Line 3 delete "words". Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Weber (US 3080624).

In reference to claim 1, Weber discloses an appliance for dispensing scents having an aroma store, col. 1 lines 10-25, a control unit for controlling the aroma store, col. 2 lines 43-49, and a discharge unit associated with an aroma store (ref. 11) for generating and discharging a scent/aroma cloud from the aroma store, col. 3 lines 39-43, wherein the appliance is embodied as a miniaturized mobile unit to be worn on the body or to be disposed in close vicinity to the user, col. 5 lines 59-62, and the discharge unit discharges the controlled scent substances stored in the appliance without the assistance of a carrier gas to dispense the scent substance, col. 3 lines 39-50 (heat is applied directly to the cartridge (ref. 11) at the "hot spot" causing the liquid to vaporize).

In reference to claim 2, Spector discloses wherein the discharge unit discharges the controlled scent substances stored in the appliance without exposing appliance components thereto, col. 3 lines 39-43 (vaporized directly from the appliance).

Claims 60-62 and 65 are rejected under 35 U.S.C. 102(b) as being anticipated by Spector (US 4629604).

In reference to claims 60, Spector discloses a scent chip, col. 3 lines 23-28, for use with an appliance for dispensing scents, comprising a carrier having a plurality of storage locations in or on which the scent substances are disposed in liquid, gel, gaseous or solid form and a discharge unit operative selectively for dispensing the scent substances from the storage locations, col. 3 lines 29-66.

In reference to claim 61, Spector discloses an arrangement of porous substances in or on which the scent substances are attached in the form of a liquid, gel, or solid deposits, col. 3 lines 35-52

In reference to claim 62, Spector discloses a carrier in the form of a resin/plastic or cardboard sheet having an arrangement of depressions/holes holding the porous substances, col. 3 lines 35-52.

In reference to claim 65, Spector discloses wherein the porous substances are embedded in a silicon on plastic resin compound, col. 3 lines 53-59.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weber (US 3080624) in view of Manne (US 2002/0018181 A1).

Weber discloses all the limitations of the parent claim as discussed above.

Weber does not disclose wherein the discharge unit discharges the controlled scent substances stored in the appliance in sync with the user's respiratory process. Manne discloses an appliance for dispensing scents wherein a discharge unit discharges the controlled scent substances stored in the appliance in sync with the user's respiratory process, paragraph 218. It would have been obvious to one of ordinary skill in the art at the time of the invention to realize that the dispenser of Weber could be modified to dispense scent in sync with the user's respiratory process as taught by Manne. This would be done to prevent waste from the scent dispenser.

Claims 1, 2, 37-41, 43-45 and 57-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spector (US 4629604) in view of Weber (US 3080624).

In reference to claim 1, Spector discloses an appliance for dispensing scents having an aroma store, col. 4 lines 6-11, a control unit for controlling the aroma store, and a discharge unit for generating and discharging a scent/aroma cloud from the aroma store, col. 4 line 64 – col. 5 line 25, wherein the appliance is embodied as a miniaturized mobile unit to be worn on the body or to be disposed in close vicinity to the user, col. 6 lines 1-11 (if integrated with a video tape player it has to be portable and would also have to be disposed in a close vicinity to the user for the user to sense the aromas released from the device). Spector does not disclose wherein the discharge

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unit discharges the controlled scent substances stored in the appliance without the assistance of a carrier gas, col. 4 lines 30-40. Weber discloses wherein the discharge unit discharges the controlled scent substances stored in the appliance without the assistance of a carrier gas to dispense the scent substance, col. 3 lines 39-50 (heat is applied directly to the cartridge (ref. 11) at the "hot spot" causing the liquid to vaporize). It would have been obvious to one of ordinary skill in the art at the time of the invention to realize that the discharge of the scent substance could be achieved through the use or non use of a carrier gas. Spector discloses the alternative method of discharge without the use of a carrier gas through his citation of Spector (US 4346059) (previously cited by the examiner) and its citation of Weber (US 3080624). Spector (4346059) states that its method of heating the air below the scent substance is an improvement over direct heating in that it helps to prevent clogging, col. 4 lines 43-66. However, if one were not using heavy oil-based perfumes the direct heating would be functionally equivalent, see col. 4 lines 60-64. Thus the substitution of one heating method over another involves no more than routine skill in the art.

In reference to claim 2, Spector discloses wherein the discharge unit discharges the controlled scent substances stored in the appliance without exposing appliance components thereto, col. 4 lines 30-40.

In reference to claim 37, Spector discloses wherein the aroma store is embodied as a microchip that can be controlled by the control unit or as a scent chip having scent substance storage locations on a chip card, col. 3 line 21 – col. 4 line 4.

In reference to claim 38, Spector discloses wherein the scent chip having the scent substance storage locations is embodied as a replaceable part, col. 4 lines 59-62.

In reference to claim 39, Spector discloses wherein the scent chip has a carrier in or on which the scent substances are disposed in the form of liquids, gels, gases, or solids, col. 3 lines 47-52.

In reference to claim 40, Spector discloses wherein the scent chip has a carrier with an arrangement of porous substances in or on which the scent substances are attached in the form of liquids gels, or solid deposits, col. 3 lines 35-52.

In reference to claim 41, Spector discloses wherein the scent chip has a carrier with an arrangement of microtanks that hold the scent substances in liquid, gel, or gaseous form and that are covered by a protective layer, col. 3 lines 47-52.

In reference to claim 43, Spector discloses wherein in the appliance one element that can be controlled by the control unit and that is used to discharge scent substance is assigned to each scent substance storage location, col. 4 lines 6-20.

In reference to claim 44, Spector discloses wherein the appliance one element that can be controlled by the control unit and that is used to discharge scent substance by thermal and/or electrochemical means is assigned to each scent substance storage location, col. 4 lines 19-20.

In reference to claim 45, Spector discloses wherein the scent chip has a carrier with an arrangement of microtanks that hold the scent substances in liquid, gel, or gaseous form and that are covered by a protective layer one element that can be controlled by the control unit and that is used to discharge scent substance is assigned

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to the scent substance storage location and one element that can be controlled by the control unit and that is used to break open the microtank is assigned to each scent substance storage location, col. 4 lines 30-40.

In reference to claim 57, Spector discloses wherein a receiving module for external control by means of a signal-generating unit or timer unit is assigned to the control unit, col. 5 lines 3-17.

In reference to claim 58, Spector discloses a small blower to assist the upward movement of the discharged scent or aroma cloud that occurs due to natural convention (body heat), col. 6 lines 22-26.

In reference to claim 59, Spector discloses a heater to enhance the discharged scent or aroma cloud, col. 5 lines 15-17.

Claims 66 and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spector (US 4629604) in view Martens, III et al. (US 4849606).

Spector does not disclose wherein the scent substance-saturated porous substances are sealed on their upper side, for example by means of wax. Martens, III et al. discloses wherein a scent saturated substance is sealed on the upper side, col. 4 lines 49-69. It would have been obvious to one of ordinary skill in the art at the time the invention was made to realize that a seal could provided on scent storage devices of Spector. The use of a seal would help to prevent tampering as taught by Martens, III et al., col. 6 lines 28-51.



Claims 42 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spector (US 4629604) in view of Weber (US 3080624) further in view of applicants 10/20/04 response.

Spector and Weber disclose all the limitations of the parent claim as discussed above. Spector and Weber do not disclose wherein a reagent is assigned to the arrangement of scent substances to initiate an exothermic reaction under defined conditions. It would have been obvious to one of ordinary skill in the art at the time the invention was made to realize that dispensing of the scent could be initiated through an exothermic reaction. This modification would be obvious since all that is necessary is that one reagent be held at the scent substance storage location and another reagent be delivered to that location. Provision of such means would be well within the skill of a person of ordinary skill in the art, see applicants 10/20/04 response page 10.

Claims 47-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spector (US 4629604) in view of Weber (US 3080624) further in view of Manne (US 2002/0018181 A1).

In reference to claim 47, Spector and Weber disclose all the limitations of the parent claim as discussed above. Spector and Weber do not disclose wherein the scent substances are stored in liquid form in an aroma reservoir cartridge, and the discharge unit discharges the stored scent substances by mean of a micrometering pump. Manne discloses wherein the scent substances are stored in liquid form in an aroma reservoir cartridge, and the discharge unit discharges the stored scent substances by mean of a micrometering pump, paragraph 72-77. It would have been

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obvious to one of ordinary skill in the art at the time the invention was made to realize that dispensing of the scent could be initiated through micrometering pump. This modification would be obvious since these are all recognized equivalent methods of aroma dispensing and thereby substitution for one over the other is a matter of design choice.

In reference to claims 48-50 neither reference specifically disclose the exact structure of the micrometering pump, that is, wherein the micrometering pump utilizes piezoelectric or thermal actuators. It would have been obvious to one of ordinary skill in the art at the time the invention was made to realize that the manually electrically or pneumatically actuated pumps of Manne, paragraph 76, are interchangeable with piezoelectric or thermal actuators. It is old and well known in the art that these types of actuators are generally equivalent and the substitution of one for the other would therefore be only a design choice. Further, as disclosed by Manne in the first sentence of paragraph 76 any type of valve system can be employed.

Claims 51-56, 63 and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spector (US 4629604) in view of Weber (US 3080624) further in view of Murayama et al. (US 6282458 B1).

Spector and Weber discloses all the limitation of the parent claim as discussed above. Neither Spector nor Weber specifically disclose a means for atomizing the discharged scent substance through a mechanical, ultrasonic or electrostatic atomizing device. Murayama et al. discloses that a scent substance can be discharged through means of atomization through a mechanical, ultrasonic or electrostatic atomizing device,

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col. 6 line 60 – col. 7 line 64. Murayama et al. also discloses that scent substance can be discharged through vaporization by means of a heating element, col. 7 line 65 – col. 8 line 14 and an electrical insulating layer on the underside of the carrier sheet, col. 8 lines 19-23. It would have been obvious to one of ordinary skill in the art at the time the invention was made to realize that discharge of scent substances in the device of Spector could be accomplished through a mechanical, ultrasonic or electrostatic atomizing device since these methods are shown by Murayama et al. to be equivalent and interchangeable with dispensing through vaporization, col. 6 line 60 – col. 8 line 14. The substitution of one for another would be a design choice. It would further have been obvious to provide an insulating layer to the carrier sheet to prevent damage from the heating element. Further, it would have been obvious to one of ordinary skill in the art at the time the invention was made to realize that vaporization is produce through heating and thus any manner of heating, such as microwaves, would produce an equivalent result as an heating element. Substitution for one over the other would be a matter of design choice.

Claim 68 is rejected under 35 U.S.C. 103(a) as being unpatentable over Spector (US 4629604) in view of applicants 10/20/04 response.

Spector discloses all the limitations of the parent claim as discussed above. Spector does not disclose wherein a reagent is assigned to the arrangment of scent substances to initiate an exothermic reaction under defined conditions. It would have been obvious to one of ordinary skill in the art at the time the invention was made to realize that dispensing of the scent could be initiated through an exothermic reaction.

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This modification would be obvious since all that is necessary is that one reagent be held at the scent substance storage location and another reagent be delivered to that location. Provision of such means would be well within the skill of a person of ordinary skill in the art, see applicants 10/20/04 response page 10.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 2 and 36-59 have been considered but are moot in view of the new ground(s) of rejection. With respect to claims 60-68 the applicant's arguments are not persuasive. Spector (US 4629604) does disclose the limitations of claim 60 in particular a scent chip, ref. 10, comprising a plurality of storage locations, col. 3 lines 23-28, and a discharge unit operative for dispensing the scent substances from the storage locations, col. 4 lines 8-40.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arthur A Smith whose telephone number is (571) 272 2129. The examiner can normally be reached on Monday - Thursday from 8:00 AM to 5:30 PM. The examiner can also be reached on alternate Fridays during the same hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (572) 272 2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Arthur A. Smith  
January 4, 2005